

ABSTRACT OF THE DISCLOSURE

A semiconductor device comprising: a tape substrates 2 for supporting a semiconductor chip 1; wires 4 for connecting the pads of the semiconductor chip 1 and the connection terminals of the tape substrates 2; a sealing portion formed on the chip supporting face 2a of the tape substrates 2 for resin-sealing the semiconductor chip 1; and a plurality of solder balls disposed on the back face 2b of the tape substrates 2. After a block molding operation for resin-molding a plurality of device areas altogether, the semiconductor device is diced and individualized. By performing the block-molding operation using a molding tool having protrusions 13c on a cavity forming face 13a, grooves 8a are formed in the surface of a block-molded portion 8 when this portion 8 is formed. Therefore, the tensile deformation of the surface of the block-molded portion 8 at the setting/shrinking time of a molding resin 14 is relaxed by the grooves 8a to reduce the warpage of the block-molded portion 8 after the resin was set.